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BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Application Number: 10/758,820
Filing Date: January 16, 2004
Appellant(s): HAUGHAWOUT ET AL.

Gary R. Jarosik, Reg. No. 35,906
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed on 08 December 2005 appealing from the Office action mailed on 29 July 2005.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

5,726,645	KAMON et al.	3-1998
5,815,086	IVIE et al.	9-1998
6,297,746	NAKAZAWA et al.	10-2001
5,097,249	YAMAMOTO	3-1992
6,008,735	CHILOYAN et al.	12-1999

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

A. Claims 1, 3, 5, 6, 8-10, 12-14, 29, 31, 33, 34, 36-38, 40, and 44-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamon et al. (US 5,726,645) in view of Ivie (US 5,815,086).

Referring to claims 1, 29, 44, and 45, claim 29 calls for a control device that is substantially similar to the one claimed in claim 1. As shown in Fig. 6, Kamon teaches a remote control system comprising: (a) operation detecting circuit 10 (i.e., a power monitor) associated with appliance 20, wherein operation detecting circuit 10 has circuitry for determining appliance 20's current power state and transmission portion 10*b* (i.e., first wireless communication module) for transmitting information to a remote controller (see Col. 4, lines 65-67 and Col. 5, lines 1-3 and 9-22); (b) a remote controller having (1) preset data of command codes (i.e., library of command code sets) employing various formats and code systems associated with respective electronic devices categorized according to the manufacturers and types thereof, (2) light emitting portion 1 (i.e., a second wireless communication module) for transmitting a command code to appliance 20, and (3) receiving portion 11 (i.e., a third wireless communication module) for receiving a signal from operation detecting circuit 10 (see Figs. 4 and 5; Col. 3, lines 42-47; Col. 4, lines 34-54 and 65-67; and Col. 5, lines 1-3 and 37-40); and (c) wherein the remote controller has setup mode programming (see Fig. 7) that includes the

steps of (1) light emitting portion 1 transmitting a command code from a command signal group to appliance 20 at S104, (2) receiving portion 11 receiving a signal from operation detecting circuit 10 that indicates that the transmitted command code caused a change in appliance 20's current power state at S105, and (3) control portion 4 selecting and storing the command code set that includes the command code to which appliance 20 responded by changing power state at S109 (see Col. 5, lines 37-40; Col. 6, lines 36-67; and Col. 7, lines 39-47). Regarding claim 29, Kamon's light emitting portion 1 and receiving portion 11 form a second wireless module. Kamon's operation detecting circuit 10 determines appliance 20's current power state by monitoring the appliance's headphone jack for a signal input instead of monitoring the power supplied to (as called for in claims 1 and 29) or current flow to appliance 20 (as called for in claims 43 and 44).

In an analogous art, Ivie teaches a remote control system, as shown in Fig. 1, comprising: (a) single universal transmitter 106, which is associated with appliance 10, having a current monitor for monitoring power supplied to appliance 10 to thereby determine appliance 10's present power state and a first wireless communication module formed by infrared (IR) modulator 114 and IR emitter 116 (see Fig. 2; Col. 5, lines 60-67; and Col. 6, lines 1-10 and 39-52); and (b) hand-held transmitter 230 having a library of command code sets and a second wireless communication module provided by IR emitter 232 (see Col. 10, lines 25-26 and 34-43).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify Kamon's operation detecting circuit 10 as taught by Ivie because a current monitor effectively determines whether an appliance is in a "power on" state or in a "power off" state (see Ivie, Col. 6, lines 39-67 and Col. 7, lines 1-14) and enables headphone plug 10*a* of Kamon's appliance 20 to be free for its intended use instead of being used as a power monitor.

Regarding claims 3 and 31, Kamon teaches that the remote controller has a power supply key (PW key 2*a*) for turning a power supply on and off (see Col. 3, lines 58-59). Kamon adds that the power supply of appliance 20 is turned on or off depending on its previous state in response to the power supply on/off switching command signals (see Col. 5, lines 63067 and Col. 1, lines 1-2); hence Kamon's command codes directly affect the power state of an appliance.

Regarding claims 5, 9, 33, and 37, per Kamon, after it determines that the SET key 2*c* has been pushed at S101 (as called for in claims 9 and 37), the remote controller automatically transmits a command code from each command signal group until receiving a signal from operation detecting circuit 10 (see Fig. 7, S106, S107, and S108 and Col. 7, lines 1-13 and 59-67), as called for in claims 5, 9, 33, and 37.

Regarding claims 6, 10, 34, and 38, Kamon expresses that the remote controller has a read-only memory ROM 7 for storing a plurality of command signal groups employing various formats associated with respective electronic appliances categorized according to manufacturers and types thereof (see Col. 4, lines 34-38); thus each command signal group commands one type of appliance.

Regarding claims 8, 12, 36, and 40, Kamon teaches that the command signal groups are arranged in outputting order that is determined in accordance with the degrees of spread (i.e., popularity) of the appliances (see Fig. 3 and Col. 5, lines 52-62).

Regarding claim 13, Kamon teaches that operation detecting circuit 10's transmission portion 10*b* transmits its signal by means of electric wave (i.e., radio frequency) or IR rays and that the remote controller's receiving portion 11 (i.e., third communication module) receives the signal (see Col. 4, lines 65-67 and Col. 5, lines 1-7 and 18-22).

Regarding claim 14, Kamon's remote controller has a light-emitting portion 1 (i.e., a second wireless communication module that is an IR communication module) for transmitting a command code to appliance 20 (see Fig. 4 and Col. 4, lines 11-15).

B. Claims 2 and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamon et al. (US 5,726,645) in view of Ivie (US 5,815,086) as applied to claims 1 and 29 above, and further in view of Nakazawa et al. (US 6,297,746).

Regarding claims 2 and 30, Kamon and Ivie fail to teach that operation detecting circuit 10's signal includes the operation detecting circuit 10's address in addition to appliance 20's current power state.

In an analogous art, Nakazawa teaches a centralized apparatus control system, as shown in Fig. 1, comprising: (a) a plurality of terminals 200, wherein each terminal 200 (i.e., power monitor) is associated with an electrical apparatus (such as a television set, videocassette recorder, etc.) and has microcomputer 30 for determining the current power state of its associated apparatus and radio transmitter-receiver 32 (i.e., a first wireless communication module) for transmitting the current power state of the apparatus (see Fig. 4; Col. 10, lines 41-51; and Col. 11, lines 2-15); and (b) host unit 100 (i.e., control device) having EEPROM 18 for storing a library of command code sets for each apparatus that is provided with an expanded function (see Col. 22, lines 24-34 and 48-55; and Col. 23, lines 10-28) and radio transmitter-receiver 20, which has a transmitter (i.e., a second wireless communication module) for transmitting a command code to an apparatus via terminal 200 and a receiver (i.e., a third wireless communication module for receiving a signal indicating the current power state of an apparatus from terminal 200 (see Fig. 2; Col. 9, lines 36-39 and 47-67; Col. 10, lines 26-29; and Col. 11, lines 7-15). Per Nakazawa, terminal 200 transmits its identification (ID) code along with the current power state of its associated apparatus to host unit 100 (see Col. 11, lines 7-15).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system and method of Kamon and Ivie as taught by Nakazawa because an operation detecting circuit 10 that transmits its address in addition to appliance 20's current power state enables the remote controller to (1) verify that the transmitted command code caused the desired appliance 20's power state instead of another appliance's power state to change and (2) easily identify any operation detecting circuits 10 that have malfunctioned (see Nakazawa, Col. 3, lines 49-54).

C. Claims 4 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamon et al. (US 5,726,645) in view of Ivie (US 5,815,086) as applied to claims 1 and 29 above, and further in view of Yamamoto (US 5,097,249).

Regarding claims 4 and 32, Kamon and Ivie are silent on the remote controller transmitting a command code that indirectly affects a power state of the appliance.

In an analogous art, Yamamoto teaches a power status detecting apparatus. As shown in Fig. 1, Yamamoto's system comprises: (a) power status detecting apparatus 11 and power table tap 9 forming a power monitor and having circuitry for determining a current power state of an appliance and receiving portion 11A (i.e., a first wireless communication module) (see Fig. 3; Col. 3, lines 19-25 and 41-60; and Col. 4, lines 6-22); and (b) system control apparatus 12 having a library of command code sets, transmitting portion 13 (i.e., second wireless communication module) for transmitting a command code to an apparatus, and a communication module for receiving communication from power status detecting apparatus 11 (see Col. 3, lines 40-43; Col. 5, lines 63-68; and Col. 6, lines 1-6). Yamamoto teaches transmitting command codes that indirectly affect the power state of an apparatus (see Col. 1, lines 42-53). In one example, Yamamoto discloses that when a command code for changing over the input of main amplifier 6 to the CD player is transmitted to selector 5, system

control apparatus 12 transmits a command code to television tuner 2 via transmitting portion 13 to turn off if system control apparatus 12 detects that television tuner 2 is in the ON state (see Col. 5, lines 63-68 and Col. 6, lines 1-6). Other examples are found in Col. 8, lines 42-61 and Col. 9, lines 1-8.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system and method of Kamon and Ivie as taught by Yamamoto because a remote controller transmitting a command code that indirectly affects a power state of an appliance ensures that all necessary system components are turned on while the unnecessary components are turned off when a user selects a particular function/operation on the remote controller (see Yamamoto, Col. 1, lines 42-53).

D. Claims 7, 11, 35, and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kamon et al. (US 5,726,645) in view of Ivie (US 5,815,086) as applied to claims 1 and 29 above, and further in view of Chiloyan et al. (US 6,008,735).

Regarding claims 7, 11, 35, and 39, Kamon and Ivie fail to teach that the user is able to designate the appliance's type.

In an analogous art, Chiloyan's method and system for programming a remote control unit. Chiloyan's system includes a remote control unit having: (a) database 16 (i.e., library of command code sets) of code sets associated with various types and brands of devices (see Col. 4, lines 29-32); and (b) transmitter 18 (i.e., a wireless communication module) for transmitting signals from the remote control unit to a receiver 30 associated with one of a plurality of controllable devices 28*a* (see Fig. 1 and Col. 4, lines 40-48). As shown in Figs. 3A-3M and Fig. 5, Chiloyan's method includes the step of a user selecting device type and brand at steps 105 and 110 respectively (see Figs. 3C and 3D; Col. 6, lines 33-56 and Col. 10, lines 25-31).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the system and method of Kamon and Ivie as taught by Chiloyan because a remote controller having menus of available device types and brands provides a user the option to manually identify the correct code set for a device while minimizing/eliminating the need for the user to use an instruction manual and the occurrence of error in the set-up process (see Chiloyan, Col. 2, lines 3-6 and 16-20).

(10) Response to Argument

The appellant presents three arguments: (1) that the rejection under 35 U.S.C. § 103 reflects impermissible use of the appellant's specification as a template to combine the parts of the reference cited for the purpose of deprecating the invention claimed (see page 5-7); (2) that there is no suggestion or motivation to Kamon's operation detecting circuit 10 as taught by Ivie (see pages 7-8); and (3) that "the express teachings of Ivie suggest that the headphone jack of Kamon's appliance may be rendered free not by modifying the power monitor of Kamon but instead by removing the Kamon power monitor from the headphone jack and modifying the remote control of Kamon whereupon the remote control of Kamon remains configurable by a user entering a number on the keypad to select with set of infrared codes from a library of infrared codes will apply" (see pages 8-9).

With regards to the first argument concerning impermissible use of hindsight, the examiner respectfully disagrees for two reasons. First of all, the appellant omits teaching in the specification that power monitor unit 14 is advantageous due to its ability to monitor power supplied to an appliance without using the appliance's headphone plug, thereby leaving the headphone plug free for its intended purpose. Secondly, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made,

and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). In this case, one of ordinary skill in the art would recognize that a power monitor connected between an appliance and a power source, as taught by Ivie, is preferable over Kamon's operation detecting circuit 10 (i.e., power monitor) since a power monitor as taught by Ivie enables an appliance's headphone plug to be used as originally intended. Consequently, impermissible hindsight reasoning was avoided since (1) the motivation to combine is not found in the appellant's specification, and (2) one of ordinary skill in the art would recognize the advantage(s) of modifying Kamon's operation detecting circuit 10 as taught by Ivie.

In response to the appellant's second argument that "nowhere does Ivie disclose, teach, or suggest the desirability of modifying Kamon to thereby enable the headphone plug of Kamon's applicant to be free for its intended use instead of being used as a power monitor" (see page 7 of the appeal brief) and that Ivie "fails to include any teaching that might be said to evidence that it would have been obvious or even desirable to modify Kamon for any purpose, let alone for the purpose espoused in the rejection of the claims" (see page 8 of the appeal brief), the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves **or in the knowledge generally available to one of ordinary skill in the art**. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988)and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). As explained in the previous paragraph, one of ordinary skill in the art would recognize that a power monitor connected between an appliance and a power source, as taught by Ivie, is preferable over Kamon's operation detecting circuit 10 since a power monitor as taught by Ivie enables an appliance's headphone plug to be used as originally intended and is able to

accurately determine the appliance's power state even if the appliance is muted or lacks an audio output, which is a shortcoming of Kamon's operation detecting circuit 10 due to its reliance on the presence of an audio output for determining an appliance's power state.

Regarding the appellant's third argument, the test for obviousness is what the combined teachings of the references would have suggested to those of ordinary skill in the art, not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981). In this case, Kamon discloses a remote control, which has groups of command signals for different appliances (see Col. 4, lines 34-38, and Col. 5, lines 42-62). In order to reduce the number of key operations during setup (see Col. 2, lines 31-46), a user plugs in operation detecting circuit 10, which determines an appliance's present power state, into television set 20's headphone plug 10*a* and pushes the SET key 2*c* of Kamon's remote control once, causing the remote control to sequentially transmit command signals for turning an appliance on or off until operation detecting circuit 10 transmits an indication to the remote control that the appliance responded to a particular on/off command (see Col. 5, lines 42-67 and Col. 6, lines 1-9). When the remote control receives the indication from operation detecting portion 10, the remote control regards the command signal group (including the most recently output command signal at the point in time when this indication signal is received) as associated with television set 20 and selects/sets this command signal group (see Col. 6, lines 3-13). Kamon discloses that operation detecting circuit 10 monitors television set 20's power state by detecting the presence or absence of an audio output signal via headphone plug 10*a* and transmits a signal via radio transmission or infrared (IR) to the remote control that an audio has been detected (see Col. 4, lines 63-67; Col. 5, lines 1-22; and Col. 6, lines 3-13); thus Kamon's operation detecting circuit 10 indirectly monitors the power supply since television set 20 is unable to output an audio signal if it is off and does not draw current

from the power supply. Kamon omits teaching that operation detecting circuit 10 has circuitry that determines television set 20's power state by directly monitoring the power supply. Ivie, on the other hand, teaches a remote control system, wherein an appliance is connected to a current monitor having circuitry that monitors the amount of current being drawn by an appliance in order to determine the appliance's power state (see Col. 6, lines 39-52 and 66-67; and Col. 7, lines 1-14). Thus, Ivie's current monitor is evidence that a power monitor associated with an appliance, wherein the power monitor has circuitry for monitoring power supplied to the appliance, is well known to those of ordinary skill in the art at the time the invention was made and that it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the circuitry of Kamon's operation detecting circuit 10 as taught by Ivie such that operation detecting circuit 10 determines television set 20's power state by monitoring the power supply instead of an audio output signal.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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